

magnet to be used for this purpose. I had also pointed out the fact of the applicability of my experiments to the electro-magnetic telegraph. I make a distinction between the terms discovery and invention. The first relates to the development of new facts; the second to the application of these or other facts to practical purposes."—*House Case*, p. 93.

To be Continued.

For the Journal of the Franklin Institute.

Prices of Cast Iron Pipes for Street Use.

The prices of cast iron pipes for street use, has become so much reduced in consequence of the low price of iron and improved method of manufacture, that a comparison between the prices of this year and those paid in 1820, may be interesting.

Prices in 1820.				Prices in 1850.			
22	inch pipe, per foot	\$6	25				
20	" " "	5	00			\$2	75
16	" " "	3	33 $\frac{1}{4}$			2	18
10	" " "	2	40			1	03
8	" " "	1	66 $\frac{3}{4}$				82
6	" " "	1	10				62
4	" " "		64				40
3	" " "		45				26

On Ørsted's Experiments on Falling Bodies. By PROF. J. R. YOUNG.*

"One of the most important observations first made by Ørsted, and since then confirmed by others, was, that a body falling from a height, not only fell a little to the east of the true perpendicular—which is, no doubt, due to the earth's motion—but that it fell to the *south* of that line; the cause of this is at present unexplained. It is, no doubt, connected with some great phenomena of gravitation which yet remains to be discovered."*—*Lit. Gaz.*, March 22, 1851, p. 221.

The explanation of this phenomenon is very easy. Suppose a heavy body to be let fall from a point vertically over P (see diagram, p. 373:) when it is let go, the body will have a progressive velocity towards the east *greater* than the velocity of P at the foot of the vertical; and this velocity it will preserve throughout its fall, which, from the nature of gravity, must be in a *vertical plane* through P and C, the centre of the earth. Now the point P, at the foot of the vertical line, *recedes* from this plane towards the *north* during the descent of the body, since it describes a circle oblique to it round the axis of the cone: the body, therefore, will fall towards the *south* of the P as well as towards the east. If the experiment be performed in south latitude, the deviation will, of course, be *north* instead of south.

† London Mechanics' Magazine, No. 1447.

* I regret that, from the loss of my library, I cannot now refer to the *Mécanique Céleste*; but I well remember that Laplace somewhere enters into a mathematical discussion of the phenomena: it is either in the first or second volume.